To conclude, SAT detects *M. tuberculosis* with greater sensitivity than traditional culture, and could be the method of choice for rapid (⩽1.5 h) diagnosis of tuberculosis.

OL-054 Evaluation of two methods for identifying Beijing strains of *Mycobacterium tuberculosis* in pulmonary tuberculosis patients with culture positive specimens

H. Goudarzi[1], S. Jahani Sherafat[1,2]*, P. Farnia[2], S.S. Seyedjavadi[1], M. Goudarzi[1]. [1]*Shahid Beheshti University Medical Campus, Department of Microbiology,* [2]*Mycobacterium research center, Iran*

Background and Aim: The Beijing strain of *Mycobacterium tuberculosis* have attracted special attention due to association with multi drug resistance and rapid transmission. Spoligotyping is the gold standard for the identification and classification of Beijing strains of *MTB*. This technique however needs special equipment that there are not in clinical laboratory. In current study we compare two fast and cost-effective methods.
Materials and Methods: Using CTAB method for extract DNA from positive culture specimens in tuberculosis patients. Then with spoligotyping, we determined different strain of *MTB*, and using multiplex PCR with 3 set of PCR primers (BjF-BjR/nBjF-nBjR/IS59-IS60) and Ar-Af primers for investigation the number of IS6110 in dnaA-dnaN regain.
Result: We genotyped 200 *MTB* isolated by spoligotyping and multiplex PCR and PCR. 19 isolates we determined to be Beijing strains and the remaining 181 isolated were non Beijing strains by spoligotyping. The multiplex PCR and dnaA-dnaN regain PCR indicated the same result.
Conclusion: Considering the same detection power of three methods to distinguish Beijing strain, and higher cost effectiveness of two methods in comparison to spoligotyping, both of them can be used in clinical laboratories settings. But in multiplex PCR has some advantages, for example we have a internal control for *MTB* and we can distinguish between Beijing and non Beijing TB in one reaction.

OL-055 Interferon ELISPOT study immune response against mycobacterial ESA T6 and PPD

F. Ghatei[1,2]*, H.R. Zare[2,3], M. Habibagahi[2,3], M. Tahery[2,3], P. Farnia[2,4]. [1]*Department of biochemistry,* [2]*Medical School, Shiraz University of Medical Sciences,* [3]*Department of immunology,* [4]*Department of microbiology, Iran*

Introduction: Vaccination with BCG hampers *Mycobacterium tuberculosis* infection detection by skin test due to false positive and inconsistent results. Alternative techniques which use *M. tuberculosis* specific antigens may help to compensate this problem. In this study, cellular immune response against ESAT-6 of *M. tuberculosis* and PPD in different groups was examined.
Methods: Gamma interferon (IFN-γ) production by 2×10^3 PBMC of 80 cases, divided in groups of patients with active disease, treated healed persons, TB suspicious and normal individuals, was analyzed by ELIS POT assay after an overnight stimulation with ESAT-6 and PPD, Spot-forming units of each individual was counted and photographed which used to determine the frequency of Ag-specific lymphocytes.
Results: Neither of healthy control persons showed significant reactivity against ESAT-6 Ag. Moreover, only a moderate reactivity (up to 15 cells/10^6) against PPD Ag was seen in 25% of this group. Recognition of both Ags by all patients with active disease and those healed after treatment was seen. The frequency of the reactivity against ESAT-6 and PPD were 5–200 and up to 25 cells/10^6 lymphocytes, respectively. Only 20% of TB-suspicious patients had reactivity of > IS cells/10^6 against ESAT-6.
Conclusion: Lack of reactivity of normal individuals against ESAT-6 and response of almost all patients toward this Ag reconfirms published results from similar patients from other places and emphasizes the need for such accurate, rapid and specific diagnostic method in our health care system. Discrimination of patients will prevent un-necessary antibiotic therapies in suspicious patients and direct therapies to the actual TB patients.

Poster Presentations

Friday–Sunday, July 16–18, 2010
Poster Session, Exhibition Hall 1

PP-001 Extended-spectrum β-lactamase producing *Escherichia coli* strains isolated from male and female neonates: mode of transmission of CTX-M gene and a clinico-bioinformative study

A. Khan[1]*, S. Shakil[1], M. Akram[1], S. Ali[1]. [1]*AMU Aligarh, India*

Background: Due to increase in drug resistance world wide, this study was undertaken to characterize mode of transmission of bla_{CTX-M} among ESBL-producing *E. coli* isolates.
Methods: ERIC-PCR was used to type the ESBL-producers strains. A search for bla_{CTX-M} genes and integrons in the genomic and plasmid DNA of ESBL positive isolates was performed by PCR amplification. Cloning, sequencing of CTX-M gene was performed and submitted in gene bank (**FJ997864**, **FJ997865**, **GQ174503**, **GQ145221** and **GQ174504**). Modelling and docking was performed by Autodoc.
Results: The ERIC typed isolates were screened for bla_{CTX-M}, bla_{TEM}, *armA*, *rmtA* and *rmtB*. PCR amplified bla_{CTX-M} genes were cloned and sequenced. Five $bla_{CTX-M-15}$, 2 *rmtB*, 2 bla_{TEM-1} and 13 Class1 integrons were detected. All the $bla_{CTX-M-15}$ positive isolates, except one were clonally related. 'Length of stay in NICU' was found as the single independent risk factor.
Conclusion: This study concludes that resistant markers were transferred through plasmids in the present setting. Male neonates who are colonized or infected by ESBL-producing *E. coli* might have a longer stay in NICU compared to their female counterparts.